Please add the following new claims.

--282. A method of modulating an immune system response to an allergen, the method comprising steps of:

isolating from an individual one or more professional antigen presenting cells (pAPC);

exposing the isolated cells to an allergen and a factor selected from the group consisting of LPS, CD40, CD40 ligand, BCGs, oligonucleotides containing CpG motifs, TNF-α, microbial extracts, IL-12, IL-2, IL-18, IL-1β, fragments of IL-1β, IFNα, and IFNγ; and

administering the allergen-exposed pAPC to the individual so that immune response of the individual to the allergen is modulated away from a Th2 response.

283. The method of claim 282, wherein the professional antigen presenting cells are selected from the group consisting of mature pAPC, immature pAPC, and precursors to pAPC.

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284. The method of claim 282, wherein the pAPC are mature pAPC.

285. The method of claim 282, wherein the pAPC are immature pAPC.

286. The method of claim 282, wherein the pAPC are selected from the group consisting of dendritic cells, B-cells, and macrophages.

287. The method of claim 282, wherein the pAPC are dendritic cells.

288. The method of claim 282, wherein the step of exposing comprises exposing the cells to a crude allergen preparation.

289. The method of claim 282, wherein the step of exposing comprises exposing the cells to a

substantially pure allergen.

290. The method of claim 282, wherein the step of exposing comprises contacting the cells with an allergen that is associated with a targeting agent.

291. The method of claim 282, wherein the microbial extracts are selected from the group consisting of any *Staphylococcus aureus* preparation, heat-killed *Listeria*, and modified cholera toxin.

292. The method of claim 282, wherein one or both of the allergen and factor are associated with a targeting agent.

D1 293. The method of claim 292, wherein the targeting agent is selected from the group consisting of a mannose receptor ligand, a Fc receptor ligand, a complement receptor ligand, and DEC205.

294. The method of claim 292, wherein the targeting agent is capable of targeting to intracellular vesicles within pAPCs.

295. The method of claim 292, wherein the targeting agent comprises at least the Fc portion of an Ig molecule.

296. The method of claim 292, wherein the targeting agent comprises at least the Fc portion of an IgG molecule.

297. The method of claim 282, wherein one or both of the allergen and factor are encapsulated.

298. The method of claim 282, wherein the allergen and factor are encapsulated together.

299. The method of claim 282, wherein the allergen and factor are encapsulated separately.

300. The method of claim 296, wherein one or both of the allergen and factor are encapsulated and associated with a targeting agent.

301. The method of claim 282 wherein the step of exposing comprises exposing the cells to a modified allergen.

302. The method of claim 282 further comprising administering allergen to the individual.

303. A method of modulating an immune system response to an allergen, the method comprising steps of:

isolating from an individual one or more professional antigen presenting cells (pAPC);

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exposing the isolated cells to an allergen and a factor selected from the group consisting of LPS, CD40, CD40 ligand, BCGs, oligonucleotides containing CpG motifs, TNF-α, microbial extracts, IL-12, IL-2, IL-18, IL-1β, fragments of IL-1β, IFNα, and IFNγ;

contacting the antigen-exposed pAPC with T-cells so that a Th2 response is inhibited; and

administering the T-cells to the individual so that immune response of the individual to the allergen is modulated away from a Th2 response.

304. The method of claim 303, wherein the professional antigen presenting cells are selected from the group consisting of mature pAPC, immature pAPC, and precursors to pAPC.

305. The method of claim 303, wherein the step of contacting comprises contacting the antigen-exposed pAPC with T-cells in the presence of a Th1 inducing agent selected from the group consisting of LPS, CD40, CD40 ligand, BCGs, oligonucleotides containing CpG motifs,

THFα, microbial extracts, IL-12, IL-2, IL-18, IL-1β, fragments of IL-1β, IFNα, and IFNγ.

306. The method of claim 305, wherein the microbial extracts are selected from the group consisting of any *Staphylococcus aureus* preparation, heat-killed *Listeria*, and modified cholera toxin.

307. The method of claim 303, wherein the pAPC are selected from the group consisting of dendritic cells, B cells, and macrophages.

308. The method of claim 303, wherein the pAPC are dendritic cells.

309. The method of claim 303, wherein the step of contacting is performed concurrently with the step of exposing to allergen and factor.

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310. The method of claim 303, wherein the step of exposing comprises exposing the cells to a crude allergen preparation.

311. The method of claim 303, wherein the step of exposing comprises exposing the cells to a substantially pure allergen.

312. The method of claim 303, wherein the step of exposing comprises exposing the cells to an allergen that is associated with a targeting agent.

313. The method of claim 303, wherein one or both of the allergen and factor are associated with a targeting agent.

314. The method of claim 312, wherein the targeting agent is selected from the group consisting of a mannose receptor ligand, a Fc receptor ligand, a complement receptor ligand, and DEC205.

315. The method of claim 312, wherein the targeting agent is capable of targeting to intracellular vesicles within pAPCs.

316. The method of claim 312, wherein the targeting agent comprises at least the Fc portion of an Ig molecule.

317. The method of claim 312, wherein the targeting agent comprises at least the Fc portion of an IgG molecule.

318. The method of claim 303, wherein one or both of the allergen and factor are encapsulated.

319. The method of claim 303, wherein the allergen and factor are encapsulated together.

D1 320. The method of claim 303, wherein the allergen and factor are encapsulated separately.

321. The method of claim 303, wherein one or both of the allergen and factor are encapsulated and associated with a targeting agent.

322. The method of claim 303, wherein the step of exposing comprises exposing the cells to a modified allergen.

323. A method of treating allergy, the method comprising steps of:

identifying an individual who is allergic to an allergen;

providing a composition of professional antigen presenting cells (pAPC) displaying the allergen;

contacting the composition with T-cells of the individual in the presence of a factor selected from the group consisting of LPS, CD40, CD40 ligand, BCGs, oligonucleotides

containing CpG motifs, TNF-α, microbial extracts, IL-12, IL-2, IL-18, IL-1β, fragments of IL-1β, IFNα, and IFNγ; and

administering the T-cells to the individual so that immune response of the individual to the allergen is modulated away from a Th2 response.

324. The method of claim 323, wherein the professional antigen presenting cells (pAPC) are selected from the group consisting of mature pAPC, immature pAPC, and precursors of pAPC.

325. The method of claim 323, wherein the microbial extracts are selected from the group consisting of any *Staphylococcus aureus* preparation, heat-killed *Listeria*, and modified cholera toxin.

326. The method of claim 323, wherein the pAPC are selected from the group consisting of dendritic cells, B cells, and macrophages.

327. The method of claim 323, wherein the pAPC are dendritic cells.

328. The method of claim 323, wherein the step of providing comprises:

isolating from the individual one or more professional antigen presenting cells (pAPC); and

exposing the isolated cells to the allergen and a factor selected from the group consisting of LPS, CD40, CD40 ligand, BCGs, oligonucleotides containing CpG motifs, TNF-α, microbial extracts, IL-12, IL-2, IL-18, IL-1β, fragments of IL-1β, IFNα, and IFNγ.

329. The method of claim 328, wherein the microbial extracts are selected from the group consisting of any *Staphylococcus aureus* preparation, heat-killed *Listeria*, and modified cholera toxin.

330. The method of claim 328, wherein one or both of the allergen and factor are associated

with a targeting agent.

331. The method of claim 330, wherein the targeting agent is selected from the group consisting of a mannose receptor ligand, a Fc receptor ligand, a complement receptor ligand, and DEC205.

332. The method of claim 330, wherein the targeting agent comprises at least the Fc portion of an Ig molecule.

333. The method of claim 330, wherein the targeting agent comprises at least the Fc portion of an IgG molecule.

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334. The method of claim 328, wherein one or both of the allergen and factor are encapsulated.

335. The method of claim 328, wherein the allergen and factor are encapsulated together.

336. The method of claim 328, wherein the allergen and factor are encapsulated separately.

337. The method of claim 328, wherein one or both of the allergen and factor are encapsulated and associated with a targeting agent.--

Remarks

Claims 50-55, 60, 61, 63-69, 79-98, 102-112, 115-117, 122, 123, 125-127, 129, 136-157, 160-176, and 184-193 are pending in the Application and have been canceled by the Amendment submitted herewith. The claims in the present application have been rewritten to aid in examination of this case, and new claims 292-337 have been added. Support for the new claims